AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0083] with the following amended paragraph:

[0083] When the environmental monitoring and control system of the present invention is used for irrigation, it is desirable to have a sensor node that can easily be installed in the ground to measure soil moisture, temperature as well as other properties of the soil and air. FIG. 7 is a cross-sectional diagram illustrating a sensor node according to one embodiment of the present invention and the installation of the sensor node in the ground. Referring to FIG. 7, a sensor node 750 is inserted into the soil. ~~In this configuration, the sensor node 750 is a soil probe. The soil probe sensor node 750 comprises a probe body 751 which has a void to house a sensor mast 720. The sensor mast 720 comprises a plurality of soil sensors, normal (or recessed) type sensor 764 or protruding type sensor 765. The sensor node 750 further comprises a probe top part 780 to encapsulate the probe body 751 and the sensor mast 720. The sensor node also preferably comprises electronic components 770 (such as the transceiver circuit, battery, or antenna) which can be attached to the sensor mast 720 or to the probe top part 780.~~ Sensor node 750 includes a collar 752 extends out from the housing or the probe body 751 of the sensor node for anchoring the sensor node above the soil. Also, collar 752 serves to protect the sensor node from encroachment by surrounding plants, reduce the buildup of water around the probe, and reduce grass 754 shading of the probe. Collar 752 may be attached to ~~probe body 751~~ sensor node 750 or it may be loose or free floating. Sensor node 750 also includes a gasket 756 that extends out from the surface of sensor body 751. Gasket 756 serves to increase the contact force with the surrounding soil improving the stability of the installed sensor node and reducing the possibility that water will flow down along the side of the sensor body. Gasket 756 is in the shape of a ring, such as a rubber ring. In the present embodiment, sensor node 750 further includes a gasket 758. Gasket 758 is a gasket structure with an angular shape. The angular gasket structure has a top portion facing the top of the probe body, a bottom portion facing the bottom of the probe body and a side portion having tapered

width where the width decreases from the top portion to the bottom portion. Gasket 758 aids in the insertion of sensor node 750, but prevents the sensor node from being pushed up out of the soil by regular expansion cycles. In other embodiments, the sensor node may include only one gasket.